Amendments to the Specification:

Please replace the paragraph on page 1, lines 5-9, with the following amended paragraph:

--The present invention relates to a method of analyzing electromagnetic interference (EMI) (hereinafter often referred to as an "EMI analysis method"), and more particularly, to a method of analyzing electromagnetic interference arising in a large-scale, high-speed LSI (large-scale integrated circuit) by means of high-speed, ~~highlyaccurate~~ highly accurate logic simulation.--

Please replace the paragraph on page 9, lines 2-5, with the following amended paragraph:

--The present invention has been conceived to solve the drawbacks of the conventional methods and is aimed at evaluating electromagnetic interference developing in an LSI through a simulation by means of high-speed, ~~highlyaccurate~~ highly accurate analysis of a power-supply current.--

Please replace paragraph beginning on page 14, line 11, and ending in page 15, line 7, with the following amended paragraph:

--A method of analyzing electromagnetic interference according to a first embodiment of the present invention will be described hereinbelow. The schematic diagram shown in FIG. 1, shows an EMI analysis method according to the first embodiment. The quantity of electromagnetic interference developing in an LSI is analyzed based on a transient probability and static delay propagation data. A waveform shown in FIG. 3A appears at a node A of a flip-flop (FF) cell and a waveform shown in FIG. 3B appears at a node B of the FF cell when a clock signal CLK is input to a circuit shown in FIG. 2 (where FIG. 3B is an enlarged view of about 1.5 cycles of the signal designated by braces in FIG. 3A). Here, the transition probability

of a node is calculated from a ~~previouslyprepared~~ <u>previously prepared</u> netlist 1 and a transition

probability 2. Further, a static delay 4 in a current estimation waveform per change is

calculated. The amplitude of a current waveform is corrected based on information 3 about

the waveform of an electric current arising at the time of a predetermined toggling operation.

Provided that the corrected current waveform arises at a time at which a signal arrives at the

respective node, the current waveforms which appear at all nodes during a period of time

corresponding to one cycle are added to the current waveform (the current waveform

estimation processing 6). The current waveform estimation result 7 determined through

addition is subjected to the FFT processing 8, thereby determining the frequency characteristic

9 of EMI components of a circuit to be analyzed.--

Please replace the paragraph on page 15, lines 8-24, with the following amended paragraph:

--FIG. 4 is a block diagram showing the overall processing flow of the EMI analysis method

according to the first embodiment. FIGS. 5A through 5D are illustrations showing the

principle underlying the processing. In a netlist 401, a circuit, which is the subject of the EMI

analysis, is represented as circuit data. Delay information 405 for each node is derived from

the netlist 401 using static delay calculation 403 (see FIG. 5A). Transition probability

information 406 for each node is derived from both the netlist 401 and input transition

probability ~~402using~~ <u>402 using</u> propagation probability 404 (see FIG. 5B). Based on a

triangular waveform whose area corresponds to the quantity of electric current derived by

means of multiplying current waveform information by probability information, the average

current waveform calculation means 408 derives an average current waveform 409 from

element current waveform information 407 for each node (see FIG. 5C) and the delay

information 405. The thus-determined average current waveform 409 is used as average current waveform information (see FIG. 5D). The average current waveform information is subjected to FFT processing 410, thereby deriving frequency characteristic information 411.--

Please replace the paragraph beginning on page 18, line 9, and ending on page 19, line 6, with the following amended paragraph:

--FIG. 9 shows a flowchart of processing by the random current waveform estimation means 708. The average current waveform estimation means 708 reads element current waveform information from a table (step 1280) and performs a current waveform calculation loop (step 1281). The average current waveform estimation means 708 performs loop processing until the value of y (initially 1) reaches a given frequency. (step 1282). The following processing is iterated until calculation of a current waveform is completed. A determination is made as to whether a random number is smaller than the value of probability (step 1283). If a random number is smaller, the base of a triangular waveform of an instance to be processed is extracted from an output slew (step 1284). At this time, the area of the triangular waveform is defined as $W \times \frac{h}{2}$, and I is the value of the area of the triangular waveform. The height h of the triangular waveform is calculated by $2 \times \frac{1}{W}$ (step 1285), wherein I denotes the quantity of electric current flowing in a cell of an event, which is the subject of processing. This processing corresponds to processing performed by a triangular waveform shaping section. Until the value of x ~~(itially 0)~~ (initially 0) reaches $W/2$, $h(c, i)$ is repeatedly added to $I(t+x)$ and I(t-x). Further, Dt is added to x (steps 1286 and 1287). Here, $I(t+x)$ denotes total electric current flowing through all the cells at time $t+x$, and $I(t-x)$ denotes total electric current flowing through all the cells at time $t-x$.--

Please replace the paragraph on page 20, lines 1-11, with the following amended paragraph:

--An EMI analysis method according to a third embodiment of the present invention will now

be described. In the ~~previouslydescribed~~ previously described first and second embodiments,

delay information and probability information are prepared separately. Information is derived

by means of multiplying waveform information, which is obtained as element current

waveform information, by probability information. The thus-obtained information is added

to a delay time of each node. In contrast, in the third embodiment, delay propagation

probability information is derived from delay propagation probability information.

Delay/transition probability is calculated from the delay propagation probability information,

and element waveform information is added to the thus-calculated delay/transition

probability.--

Please replace the paragraph on page 20, lines 12-22, with the following amended paragraph:

--In this way, more realistic current waveform information is calculated. The result of this

current waveform calculation is subjected to FFT processing, thereby determining the

frequency characteristic of an EMI component of a circuit to be analyzed. Thus, EMI of the

circuit is analyzed. As can be seen from an enlarged view shown in FIG. 10, the present

embodiment is directed ~~particularly a~~ particularly to a case where a plurality of paths ~~is~~

~~provided~~ are provided in a composite cell. FIG. 11 shows delay transition information

concerning propagation of a signal in each of the paths of the composite cell shown in FIG. 10.

FIG. 11 shows delay transition probability information as one example. As can be seen from

FIG. 11, node information is obtained for a plurality of paths, and mean current waveform

information is derived from the node information.--

Please replace the paragraph beginning on page 20, line 23, and ending on page 21, line 14, with the following amended paragraph:

--FIG. 12 is a block diagram showing the overall flow of processing of the EMI analysis method according to the present embodiment. FIGS. 13A through 13C are illustrations showing the principle underlying the processing. FIG. 14 is a flowchart of average current waveform calculation means used in the processing. In a netlist 901, a circuit, which is the subject of EMI analysis, is represented as circuit data. Delay/transition probability 906 of each node is calculated from the netlist 901 and input transition probability ~~902based~~ 902 based on delay/propagation probability 904 (see FIG. 13A). Mean current waveform estimation means 908 produces mean current waveform information 909 (see FIG. 13C), based on a triangular waveform whose area is determined by the quantity of electric current, such that the delay/transition probability 906 is multiplied by element current waveform information 907 (see FIG. 13B). The thus-calculated mean current waveform information 909 is subjected to FFT processing 910 within a time domain that is determined using operating frequency information 912, thereby obtaining frequency characteristic information 911.--

Please replace the paragraph on page 22, lines 6-8, with the following amended paragraph:

--The frequency characteristic of a subject circuit can be determined in the manner as mentioned previously, and a designer can analyze ~~EMIthat~~ EMI that would arise in a circuit of interest.--

Please replace the paragraph on page 22, lines 9-16, with the following amended paragraph:

--According to the present EMI analysis method, delay propagation probability information

is derived from static delay information and propagation probability information, and average

current waveform information is derived from the delay propagation probability information.

The thus-obtained average current waveform information is subjected to FFT processing,

thereby enabling ~~highlyaccurate~~ <u>highly accurate</u> EMI analysis. The EMI analysis method can

analyze EMI components within a shorter period of time than a known gate-level dynamic

analysis method can.--